

eastward to Iceland, and west of the British Isles a track branches southeastward over the Bay of Biscay. An average of less than one storm per month traverses the ocean from coast to coast in May. The average velocity of storms over the north Atlantic Ocean in May and June, 16 statute miles per hour, is the least noted for the year.

The storms of the current month were generally of small intensity. Probably the severest storm of the month occupied the region north of the Banks of Newfoundland on the 1st, with pressure about 29.20 (742) and westerly gales of force 11 east of the Grand Banks. During the 2d and 3d this storm occupied mid-ocean with pressure falling to about 29.00 (736), after which it apparently decreased in energy. During the 6th and 7th low area II passed northeastward over the Gulf of Saint Lawrence and disappeared north of the Banks of Newfoundland. During the 12th and 13th a storm advanced west of north from the region east of the Bahamas, and united with low area IV near the south New England coast. On the 13th a storm appeared over mid-ocean, where it remained nearly stationary until the 16th, attended by pressure ranging from 29.40 (747) to 29.50 (749) and gales of considerable strength. By the 17th this storm had apparently moved southeastward toward the Bay of Biscay, after which it moved slowly northward over the British Isles, and disappeared over the North Sea by the 21st. The morning of the 15th low area IV was central south of Nova Scotia, from which region it moved eastward to the 50th meridian by the 17th, after which it disappeared. On the 19th low area VI passed northeastward over the Gulf of Saint Lawrence. Moving thence north of the Grand Banks this storm advanced rapidly eastward and disappeared north of the British Isles during the 23d, having traversed the ocean in three days. During the 29th low area X passed north of east over the Gulf of Saint Lawrence. The morning of the 29th low area XII occupied the North Carolina coast. From that position the storm moved rapidly northeastward, and at the close of the month had disappeared north of the 55th parallel.

OCEAN FOG IN MAY.

The limits of fog belts for May, 1893, as determined from reports of shipmasters, are shown on Chart I by dotted shading. More than the usual amount of fog was encountered

east of the 65th meridian. Near the Banks of Newfoundland fog was reported on 22 days; between the 55th and 65th meridians on 16 days; and west of the 65th meridian on 15 days. Compared with the corresponding month of the last 5 years the dates of occurrence of fog near the Grand Banks numbered 5 greater than usual; between the 55th and 65th meridians 3 greater than usual; and west of the 65th meridian 1 less than usual. The fog in the regions referred to and that noted at regular stations of the Weather Bureau on the middle Atlantic and New England coasts generally attended the approach or passage of general storms.

OCEAN ICE IN MAY.

The following table shows the southern and eastern limits of the region within which icebergs or field ice were reported for May during the last 11 years:

Southern limit.			Eastern limit.		
Month.	Lat. N.	Long. W.	Month.	Lat. N.	Long. W.
May, 1883.....	40 30	47 00	May, 1883.....	45 40	45 12
May, 1884.....	41 30	47 30	May, 1884.....	43 30	44 50
May, 1885.....	40 50	48 15	May, 1885.....	42 30	40 10
May, 1886.....	41 36	51 30	May, 1886.....	48 55	46 13
May, 1887.....	39 38	46 00	May, 1887.....	39 38	46 00
May, 1888.....	41 00	46 00	May, 1888.....	41 00	46 00
May, 1889.....	43 07	55 47	May, 1889.....	49 46	36 48
May, 1890.....	40 50	50 28	May, 1890.....	44 12	36 25
May, 1891.....	40 49	49 07	May, 1891*.....	48 00	45 00
May, 1892.....	42 14	51 20	May, 1892.....	45 05	41 14
May, 1893.....	41 05	55 55	May, 1893.....	47 02	42 16
Mean.....	41 12	49 54	Mean.....	45 02	42 44

* On the 7th three small pieces of ice were reported in N. 49° 03', W. 33° 40'.

The limits of the region within which icebergs or field ice were reported for May, 1893, are shown on Chart I by ruled shading. The southernmost ice reported, field ice observed on the 14th in the position given, about corresponded with the average southern limit of ice for May, and the easternmost ice reported, 2 medium sized icebergs, noted on the 16th in the position given in the table, was about 1/3 degree east of the average eastern limit of ice for the month. Ice was reported in great quantities over the southern and northern parts of the Banks of Newfoundland.

TEMPERATURE OF THE AIR (expressed in degrees Fahrenheit).

The distribution of mean temperature over the United States and Canada for May, 1893, is exhibited on Chart II by dotted isotherms. In the table of miscellaneous meteorological data the monthly mean temperature and the departure from the normal are given for regular stations of the Weather Bureau. The figures opposite the names of the geographical districts in the columns for mean temperature and departure from the normal show, respectively, the averages for the several districts. The normal for any district may be found by adding the departure to the current mean when the temperature is below the normal and subtracting when above. The monthly mean temperature for regular stations of the Weather Bureau represents the mean of the maximum and minimum temperatures.

The mean temperature was highest in the Gila, lower Colorado, and lower Rio Grande valleys, where it was above 80, and the mean readings were above 70 south of a line traced from the South Carolina coast to extreme western Texas. The mean temperature was also above 70 over southern and western Arizona and at points in the central valleys of California. The mean temperature was lowest at mountain stations in central Colorado, where it was below 40; at Anticosti Island, Gulf of Saint Lawrence, the mean reading was

39.8. The mean temperature was below 50 in the Canadian Maritime Provinces, over the northern lake region, in the middle and northern Rocky Mountain regions, at points in central and eastern Oregon, northeast California, and on the north Pacific coast.

DEPARTURES FROM NORMAL TEMPERATURE.

The month was cooler than usual, except in the British Northwest Territory, New Brunswick, Nova Scotia, on the Massachusetts and Virginia coasts, over Florida, at points on the immediate Gulf coast, and generally in Texas, where the mean temperature was slightly above the normal. The greatest departure above the normal, 2.1, was noted at Chatham, N. B. In the British Northwest Territory the departure was 1 to 2 above the normal. The most marked departure below the normal was reported in the valley of the Columbia River, northern Utah, and central Iowa, where it exceeded 4, and the departure above the normal exceeded 2 from the Pacific coast over the central districts to the middle Atlantic states.

The following table shows for certain stations, as reported by voluntary observers, (1) the normal temperature for May for a series of years; (2) the length of record during